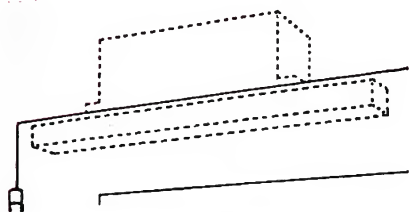


LCN DOOR CLOSERS

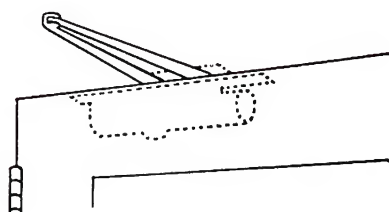
® EFFECTIVE CONTROL, CONCEALED OR EXPOSED, FOR EVERY SWING DOOR

Three Types of Concealed Door Control by LCN



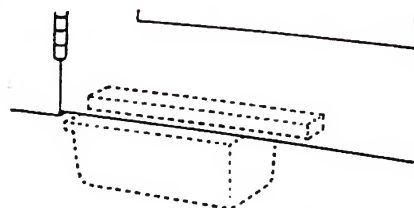
Concealed Overhead

Closer mechanism tucked away in head frame, out of sight and in position to perform at its best, protected from water and dirt.



Concealed in Door

Closer mortised into top rail of door, arm exposed. For interior doors, keeps good appearance, costs little more than an exposed closer.



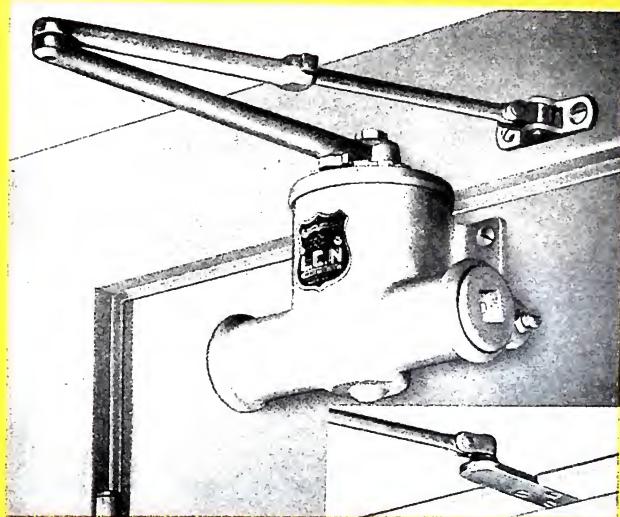
Concealed in Floor

Recommended where overhead space will not permit concealment of closer there. Does a superior job despite handicaps of floor location.

The Time-Tried, Mechanically Superior Exposed Type Door Closer

This is the basic LCN Door Closer, pictured at right. It supplies the utmost in smooth, complete door control at lowest long-run cost. Most efficient closer, by comparative tests.

It provides for easy opening of the door, controlled closing speed and quiet, firm latching action. Spring power, closing speed and latching action are individually adjustable to meet specific door use and draft requirements. Pictured, closer with regular arm and shoe. Inset, soffit shoe mortised into head jamb, for use where a regular shoe cannot be used. Available, hold-open arms 90° to 140° and 140° to 180°; soffit, corner and other brackets.



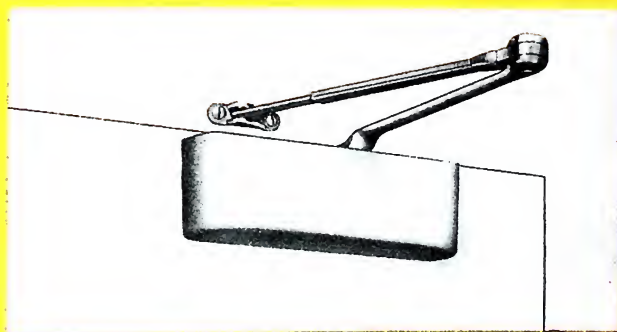
SCHEDULE OF SIZES FOR EXPOSED CLOSERS (See note below)

MAXIMUM SIZES OF DOORS for which Closers are Recommended			Catalog Numbers of Closers Recommended			Shipping Weight of Closer, Approximate
Exterior Doors		Interior Doors	With REGULAR Arm	With 90°-140° HOLD- OPEN Arm	With 140°-180° HOLD- OPEN Arm	
IN Swing	OUT Swing					
—	—	2'8"	B-Reg	B-H90	B-H180	10 lbs.*
2'2"	2'6"	3'0"	C-Reg	C-H90	C-H180	14 lbs.*
2'8"	3'0"	4'0"	D-Reg	D-H90	D-H180	16 lbs.*
3'2"	3'6"	4'6"	E-Reg	E-H90	E-H180	21 lbs.*
3'8"	4'0"	5'0"	F-Reg	F-H90	F-H180	22 lbs.*

NOTES: Closers with key valves are available; specify, e.g., C-Reg KV. Specify next larger size closer for ANY ONE of the following conditions: (1) parallel arm used; (2) strong drafts exist; (3) closer located so near hinge edge of door that leverage is seriously reduced.

*Weight shown is for regular arm closer. Add 2 lbs. for hold-open arm closers.

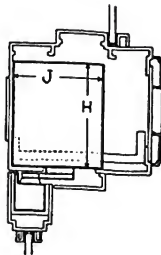
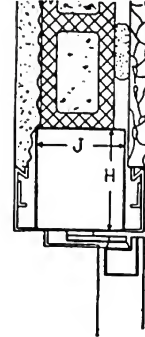
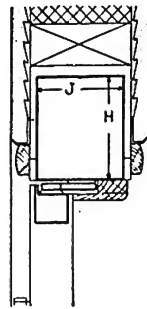
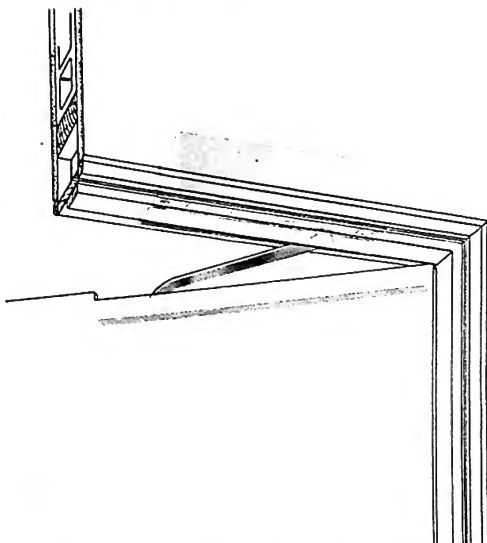
Complete Catalog Sent on Request



The New LCN "Smoother" Nos. 4002, 4003 and 4004

LCN's new surface-applied closer for interior doors of wood or metal. Good-looking from any angle; finished to harmonize with natural birch; can be painted on the job to match painted doors. Takes little space. Allows door to open 180° if trim permits. Hold-open (90°-140° only) available if desired. Closing power may be increased by reversing shoe. Door size range same as for Nos. 3002 to 3004C, p. 3.

Overhead Concealed Closers for Single-Acting Doors



Three Typical Frame Constructions

Dimension symbols H and J on door closer sections above refer to table at right. (Shown, left, Closers 202, 204, 206.)

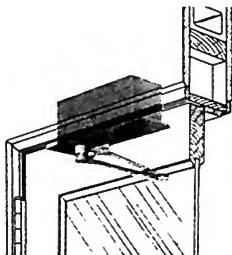
For Doors Hung on Butts: Nos. 202, 204 and 206—Closer concealed in head frame; arm recedes into door stop; no part shows when door is closed. Hold-open available for 85, 90, 100 or 110°. Door may open 180°.

For Doors Hung on Center Pivots: Nos. 202 CP, 204 CP and 206 CP—Similar to above but made for use with, and including ball-bearing *center type pivots*. Hold-open available for 85, 90, 100 or 110°. Door may open 130°.

For Doors Hung on Offset Pivots: Nos. 202 OP, 204 OP and 206 OP—Similar to above but including top and bottom *offset pivots* of bronze. For doors over 7' high or heavy metal doors, LCN bronze intermediate pivot is recommended. Hold-open available for 85, 90, 100 or 110°. Door may open 130°.

All 200 Series Closers listed above have hydraulic back-check.

Same Closer Equipped with Exposed Lever Arm

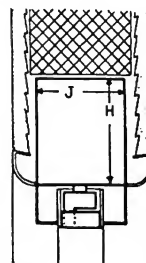
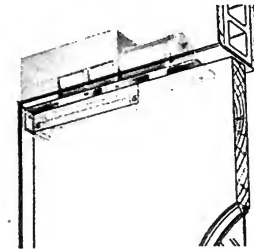


Nos. 502, 504 and 506; Nos. 502 CP, 504 CP and 506 CP; Nos. 502 OP, 504 OP and 506 OP—Closer mechanism is similar to Nos. 202, 204 and 206, but a jointed lever arm is used, which is attached to the door surface. Arm may be of hold-open type. Door, if butt hung, may open to 180 degrees if jamb conditions permit. This closer available with Underwriters approved fusible link hold-open arm (90°-140° only) for fire doors. All 500 Series Closers have hydraulic back-check. (Shown, left, Closers 502, 504, 506.)

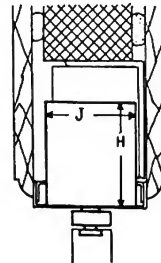
Types of Doors and Maximum Widths Handled by These Closers				Height and Width of Closer Box See Diagram
Exterior Doors (Entrance & Vestibule)		Interior Doors	Closer No.	
Inswing	Outswing			
—	—	3' 0"	202 202 CP 202 OP	H = 4" J = 3½"
2' 6"	2' 10"	3' 6"	204 204 CP 204 OP	H = 4" J = 3½"
3' 2"	3' 6"	4' 0"	206 206 CP 206 OP	H = 4¼" J = 3⅞"

Types of Doors and Maximum Widths Handled by These Closers				Height and Width of Closer Box See Diagram
Exterior Doors (Entrance & Vestibule)		Interior Doors	Closer No.	
Inswing	Outswing			
—	—	3' 6"	502 502 CP 502 OP	H = 4" J = 3½"
3' 0"	3' 4"	4' 0"	504 504 CP 504 OP	
3' 6"	3' 10"	4' 6"	506 506 CP 506 OP	H = 4¼" J = 3¾"

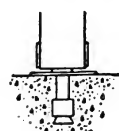
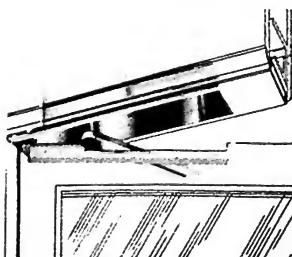
Overhead Concealed Closers for Double-Acting Doors



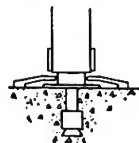
HEAD SECTION
Nos. 444-466



HEAD SECTION
Nos. 644-666



TYPICAL SILL SECTIONS



For Exterior or Interior Doors

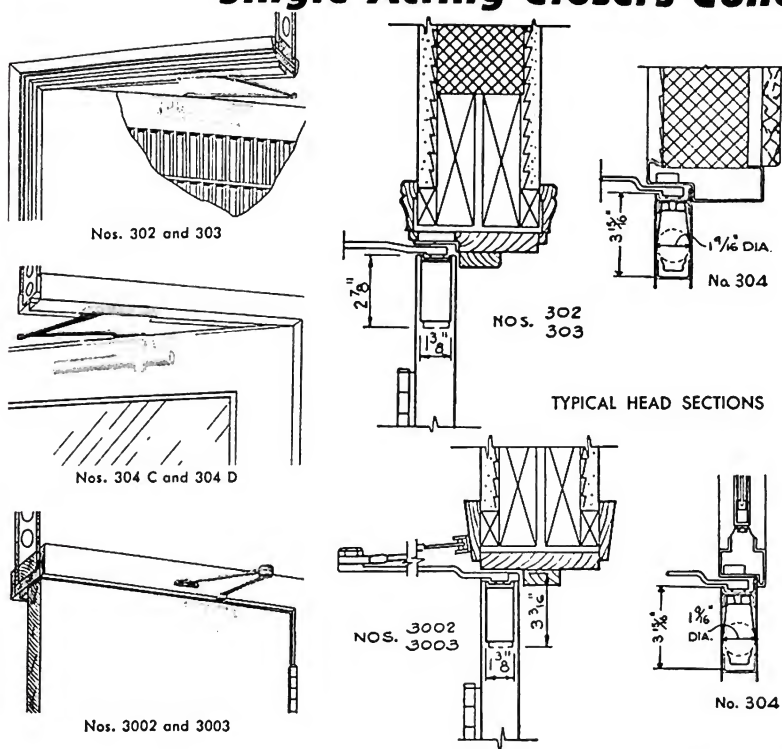
Nos. 644 and 666—(Lower perspective, right-hand head section). Two sets of closing and checking devices, separately adjustable, allow different closing powers for inswing and outswing. Back-check (to protect adjoining walls, fixtures, etc., from violent opening swings). No hold-open. No threshold needed.

For Interior Doors Only

Nos. 444 and 466—(Upper perspective, left-hand head section). Noisy, dangerous "flip-flap" eliminated in this closer. No threshold needed. Widely used in restaurants and hospitals. Pivots included.

Types of Doors and Maximum Widths Handled by These Closers			Height and Width of Closer Box See Diagram
Exterior Doors (Entrance & Vestibule)	Interior Doors	Closer No.	
2' 8"	3' 6"	644	
3' 6"	4' 0"	666	
Not to be Used for Exterior Doors	3' 6"	444	
	4' 0"	466	

Single-Acting Closers Concealed in Door



For Use with Wood or Metal Interior Doors

Nos. 302 and 303 (Arm connects with Soffit Plate) Closer is installed in top rail of door itself, with preparation like that for a mortised lock set. Ideal for hollow core doors having top rail 3 1/2" deep or deeper. Available with telephone booth closer action described on page 4. Hydraulic back-check. Hold-open to 180° if desired.

Nos. 3002 and 3003 Similar to above except for arm attaching to door frame by a surface shoe.

For Use with Metal Interior Doors Only

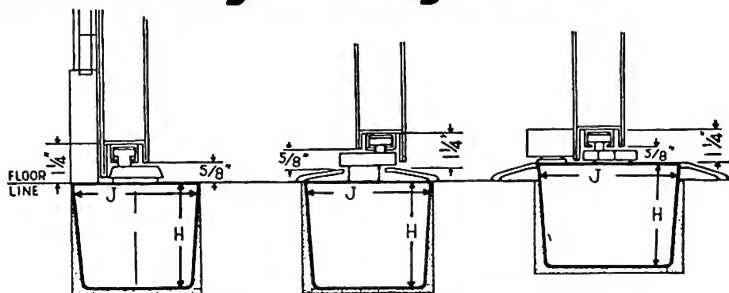
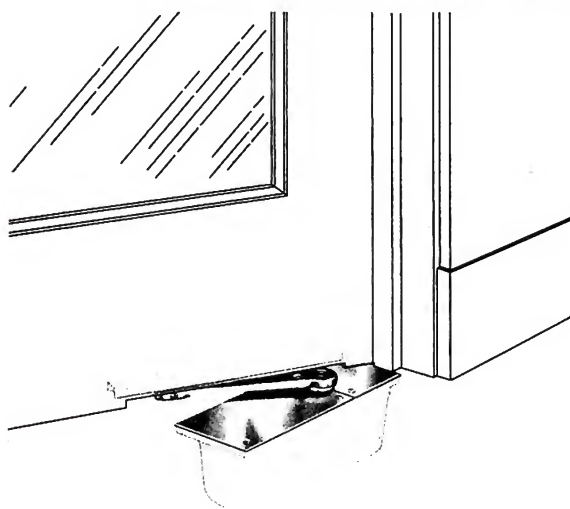
No. 304 C and 304 D (Arm connects with Soffit Plate) Similar to No. 303 but with considerably more power and made for 1 1/4" metal doors only. As door and frame are prepared by door fabricator, installation is extremely simple and time-saving. Available with telephone booth closer action described on page 4. Hydraulic back-check. Hold-open to 180° if desired.

Nos. 3004 C and 3004 D Similar to above except for arm attaching to door frame by a surface shoe.

Types of Doors, Maximum Widths and Minimum Thicknesses Handled by These Closers		
Interior Doors Only	Closer No. Regular Arm	Closer No. H. O. Arm
Wood 2'6"x1 1/4"; Metal 2'2"x1 1/4"	302 or 3002	302-H or 3002-H
Wood 3'0"x1 1/4"; Metal 2'8"x1 1/4"	303 or 3003	303-H or 3003-H
Metal Only, 3'2"x1 1/4"	304C or 3004C	304C-H or 3004C-H
Metal Only, 3'6"x1 1/4"	304D or 3004D	304D-H or 3004D-H

*Nos. 302, 303, 3002 and 3003 (NOT 304 or 3004) can be used with 1 3/8" door by providing side plates for both faces of door.

Floor Concealed Closers for Single-Acting Doors



Three Typical Sill Sections

Above sketches show: (left) closer flush with floor surface, no threshold; (center) closer flush with floor, covered by threshold, with center-pivot-hung door; (right) closer flush with top of threshold, door hung on offset pivots. Each LCN floor closer is adaptable to any of the three situations as to level of closer and use or non-use of threshold.

Floor Closers Used where head frame space is insufficient for overhead concealment. (Nos. 2, 4, 6 shown, left.)

For Doors Hung on Butts: Nos. 2, 4 and 6—The most practical type of floor closer. Power applied by lever arm to track concealed in door. Closer easily serviced without ever removing door, which hangs independently of closer. Door may open 180° if jamb conditions permit.

For Doors Hung on Center Pivots: Nos. 2 CP, 4 CP and 6 CP—Similar in general to above. Drop-forged bronze ball-bearing center pivots for door are furnished with closer. Door may open 100°, jamb conditions permitting.

For Doors Hung on Offset Pivots: Nos. 2 OP, 4 OP and 6 OP—Top and bottom bronze ball-bearing offset pivots furnished. For doors over 7' high or of heavy metal, LCN intermediate pivot is recommended (not regularly furnished). Door may open 120°, jamb conditions permitting.

Types of Doors and Maximum Widths Handled by These Closers			Height and Width of Closer Box See Diagram
Exterior Doors (Entrance & Vestibule)	Interior Doors	Closer No.	
Inswing	Outswing		
—	—	3' 0"	} H 3 3/8" J 4 1/2" H 3 3/8" J 5 1/8"
—	—	2 CP 2 OP	
2' 6"	2' 10"	3' 6"	} H 3 3/8" J 4 1/2" H 3 3/8" J 5 1/8"
—	—	4 CP 4 OP	
3' 2"	3' 6"	4' 0"	H = 3 3/8" J = 5 1/8"
—	—	6 CP 6 OP	

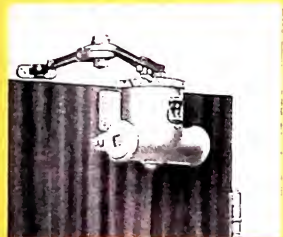
Send for Complete Catalog The brief details given here should enable the designer to select the types of door control needed for most projects. An LCN Catalog, templates and other material for complete specifications will be promptly furnished by the nearest LCN representative (see list, next page) or our home office.

LCN Exposed Door Closers Designed for Special Purposes



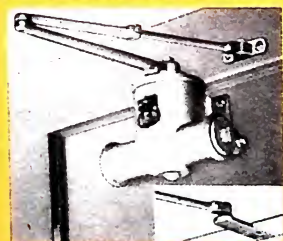
Fusible Link Closer for Fire Doors

Closer has a 90° to 140° hold-open arm with an automatic fusible link release. Sizes C-FL, D-FL, E-FL, F-FL. Acts like the ordinary hold-open arm until fire-heated air enters doorway. At 160° F. link breaks and closer positively shuts door.



Hospital Type Closer

Closer is especially arranged to hold the door open at any of three points: about 10 degrees, 40 deg. and 90 to 140 deg., latter position adjustable. Size D-Hosp only. "Hand" of door must be specified.

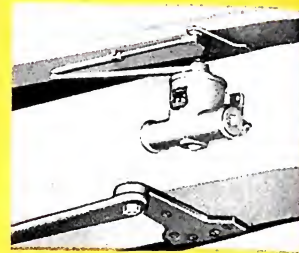


Delayed Action Closer

Developed for hospitals, factories... wherever loads are pushed or pulled through doorways. Closer holds door open, moving slowly, until load and operator are through, then closes door automatically. Sizes C-DEL, D-DEL, E-DEL. Specify "hand" of door.

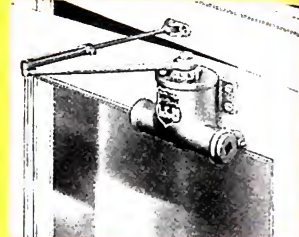
Parallel Arm Closer

Used where space in front of door will not take standard closer arm, or doorway is too low for bracket. Needs only 5½" out from face of door for B-PA, C-PA, etc. (Use closer 1 size larger than shown in table for standard arms.) Also with hold-open 90°-140° or (inset) 140°-180°.



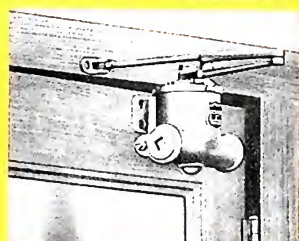
Telephone Booth Closer

Door closes to within 4" of the latch and is pulled shut when occupant enters. Also used for any door to a closet or small room where ventilation is desired. Size B-Tel only. Specify "hand" of door and finish of closer.



Coupon Booth Closer

Closer is set by attendant, with door ajar. After a person enters, closer operates as with regular arm until reset by attendant. May be used elsewhere to provide ventilation. Size B-Coup. Specify "hand" of door and finish of closer.



For full LCN Catalog or help on any door control problem, consult nearest LCN representative

LCN SALES REPRESENTATIVES

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N. C., S. C., E. Tenn., Ga., Ala. L. E. Atkins, Jr. 701 Montford Dr., Charlotte 9, N. C., Tel. JACKson 3-5188

Florida Gilbert A. Viola, 610 Biscayne Bldg., Flagler St., Miami, Fla., Tel. FR 4-7638

Miss., La. (Ex. Caddo Co.) (Temporarily open; write LCN Closers, Inc., Princeton, Ill.)

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Lower Michigan R. A. Eisen, 28 Maywood Rd., Birmingham, Mich., Tel. JORDan 4-6232

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Eastern Mo., Southern Ill. Joe T. North, 475 Countryside Dr., Florissant, Mo., Tel. TEMple 7-4340

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Oregon, Wash., N. Idaho, W. Mont. L. J. Cappa & Assoc., 1025 S.E. Third Ave., Portland 14, Ore., Tel. BELmont 5-4801; or 14724 S.E. 37th St., Bellevue, Wash., Tel. SHERwood 6-2270

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